

ABSTRACT OF THE DISCLOSURE

A system and method for feeding comminuted cellulosic fibrous material such as wood chips to the top of a treatment vessel such as a continuous digester provide enhanced simplicity, operability, and maintainability by eliminating the high pressure transfer device conventionally used in the prior art. Instead of a high pressure transfer device the steamed and slurried chips are pressurized using one or more slurry pumps located at least thirty feet below the top of the treatment vessel and for pressurizing the slurry to a pressure of at least about 10 bar gauge. A return line from the top of the digester may, but need not necessarily, be operatively connected to the one or more pumps and if connected to the pumps, the liquid in the return line may be cooled to a temperature at which it will not flash during handling. Recirculation loops may be established associated with one or all of the slurry pumps to facilitate startup. A static flow splitter may be provided to split the flow from the last pump to two or more digesters.